# Pettit Mill Pond Sediment Control Project Design Report

# LAGRANGE COUNTY, INDIANA

July 28, 2004



Prepared for:

# Five Lakes Conservation Association c/o Bob Christen Wolcottville, Indiana 46795



708 Roosevelt Road Walkerton, Indiana 46574 574-586-3400

# TABLE OF CONTENTS

	PAGE
Table of Contents	1
1.0 Project Descriptions and Purpose	2
2.0 Design Rationale	3
2.1 Grade Control	3
2.2 Sediment Trap	4
2.3 Sediment Dewatering Basin	4
3.0 Design and Construction Specifics	5
3.1 Permitting	
3.2 Landowner Agreements	
3.3 Floodplain Analysis	
3.4 Sediment Characterization	5
4.0 Bidding Requirements, Forms, and Information	5
5.0 Specifications	6
6.0 Construction Schedule	6
7.0 Monitoring and Maintenance Schedule	6
8.0 Project Summary	6
9.0 Literature Cited	6
PENDICES	
ppendix A. Design Figures and Calculations	
ppendix B. Permits	
ppendix C. Landowner Agreements	
ppendix D. Sediment Sampling and Elutriate Test Results	
ppendix E. Bid Documents and Project Specifications	



# PETTIT MILL POND SEDIMENT REDUCTION PROJECT DESIGN REPORT LAGRANGE COUNTY, INDIANA

#### 1.0 PROJECT DESCRIPTION AND PURPOSE

The Mill Pond project area is located on the northeast edge of Wolcottville within the Little Elkhart Creek Watershed (Figure 1). The Little Elkhart Creek Watershed occupies an area of 20,869 acres (8,447 ha or 32.6 square miles) from its headwaters to its mouth. The project area includes the approximately 5 acre Mill Pond and the failed dam structure, which initially created, and now partially maintains, the Mill Pond (Figure 2). Soils nearest the Mill Pond are loams and sandy loams, as are a majority of the soils in the stream's watershed. Soils within the Mill Pond are predominantly clay loams and muck. Agricultural row crop and pasture land dominate land use within the Little Elkhart Creek Watershed, while emergent and scrub shrub wetlands form the Mill Pond shoreline.



Figure 1. Pettit Mill Pond sediment reduction project general project location.

The accumulation of sediment and sediment-attached pollutants in the Mill Pond and the general state of disrepair of the Mill Pond's failed dam structure pose water quality concerns to Little Elkhart Creek and its receiving waterbody, Witmer Lake. As water moves through the Mill Pond, flow is slowed causing sediment and sediment-attached pollutants to fall out of suspension and accumulate within the Mill Pond. Sampling conducted during 2000 indicated that the Mill Pond contained 1.5 to 2.5 feet of accumulated sediment, with areas of greater depth located closer to the pond's outlet. Sediment samples collected concurrently with sediment accumulation measurements contained phosphorus concentrations of 950 mg/kg, which is greater than concentrations observed in most Illinois lakes (Commonwealth Biomonitoring, 2001). Additionally, the former dam structure, which maintains the Mill Pond's pool elevation, has fallen into disrepair and now appears on the Indiana Department of Natural Resources (IDNR) Division of Water's list of failed dams. As the structure continues to degrade, the risk of sediment and nutrient-laden water flowing downstream to Witmer Lake increases.



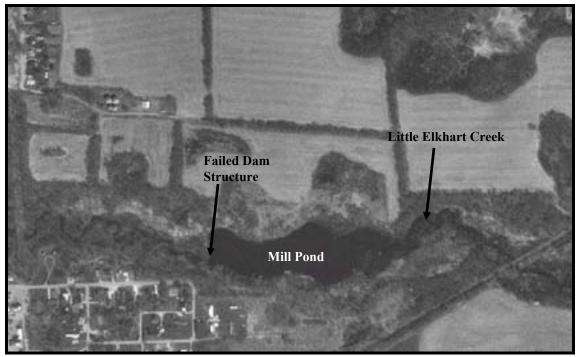


Figure 2. Pettit Mill Pond sediment reduction project site.

The Five Lakes Conservation Association (FLCA) received funding from the IDNR Lake and River Enhancement (LARE) program to design a project to address the problems noted above. Specifically, the purpose of the project is to reduce sediment and sediment-attached pollutant loading to Witmer Lake. A combination sediment trap and grade control is proposed here to eliminate the possibility of a catastrophic sediment release to Witmer Lake and to reduce sediment and sediment-pollutant loading to Witmer Lake. This report details the project design, provides a construction bid package, and outlines post-construction maintenance and monitoring schedules.

# 2.0 DESIGN RATIONALE

The project is designed to capture sediment and sediment-attached pollutants from the Little Elkhart Creek watershed and to stabilize the existing Mill Pond structure by installing a grade control structure. The sediment trap is sized to provide storage and retention for approximately ten years of sediment and sediment-attached pollutant transport in Little Elkhart Creek. This should enable the FLCA and other watershed stakeholders to begin the implementation of the watershed management plan, which is currently being developed. The grade control is designed to raise the bed of the channel at the current location of the failed dam to a level where the existing pool elevation is maintained. Fine sediment and sediment-attached pollutants will continue to be deposited in slower-flowing water upstream of the grade control, thereby continuing the retention of sediment and sediment-attached pollutants.

# 2.1 Grade Control

The existing failed dam structure at the outlet of the Mill Pond on Little Elkhart Creek is to be moved and replaced with a grade control to maintain the Mill Pond at its existing water level. This will prevent the release of sediment and sediment-attached nutrients currently trapped in the



Mill Pond. The existing failed dam structure consists of a concrete slab on the south side of Little Elkhart Creek's channel, two concrete blocks located mid-channel, a concrete retaining wall on the north side of the stream channel, and a wooden stoplog extending across the channel to both banks. The concrete slab on the south side of the channel and the wooden stoplog will both be removed from the project site. The two concrete blocks in the middle of the stream will be relocated to the proposed key trench location. The retaining wall on the north side of the structure will remain in place. (See the design drawings in Appendix A for specific locations.) The 808-square foot grade control structure will be constructed in two sections behind a temporary rock barrier. The grade control structure will consist of approximately 80 cubic yards of 4-inch to 12-inch fieldstone. (See the design drawings in Appendix A for temporary barrier and grade control installation specifics.) The grade control will maintain a storm flow pool elevation of 925.5 feet mean sea level.

# 2.2 Sediment Trap

A sediment trap measuring approximately 28,500 square feet in size will be constructed within the Mill Pond. The trap will measure a maximum of 4 feet in depth. Approximately 4,800 cubic yards of accumulated sediment will be hydraulically dredged from the Mill Pond and pumped to a disposal area directly north of the sediment trap. (See Appendix A for sediment trap design specifics.)

# 2.3 Sediment Dewatering Basin

The sediment dewatering basin will be constructed north of the Mill Pond in an existing row crop agricultural field. Silt fence will be installed between the sediment dewatering basin and the adjacent wetlands (See Appendix A for specific locations.) The basin will be constructed using existing soil material available on-site. A perimeter berm will be constructed around the basin from available soil material located within the basin structure to a height of 940 feet mean sea level. An internal berm constructed to and elevation of 938 mean sea level will run the length of the dewatering basin. Both the internal and external earthen berms will be seeded with an appropriate temporary cover mix consisting of oats and annual rye to stabilize its slope and prevent berm failure. Dredge pipes, which will be installed in a contractor-verified location north of the internal berm, will convey dredged material from the Mill Pond to the dewatering basin. Sediment will settle out of the basin as the water flows the length of the dewatering basin. Dewatering pipes will be installed at 937 feet mean sea level south of the internal berm. Dewatering pipes will carry water from the dewatering basin to the Mill Pond. A turbidity curtain will be installed in an arc with a 30-foot radius from the outlets of the dewatering pipes. (See Appendix A for dewatering basin and dredging and dewatering pipe specifics.)

The dewatering basin, turbidity curtain, and silt fence are temporary. Approximately six months after dredging is completed, the dewatering basin will be completely leveled, regraded to match the surrounding landscape, reseeded, and stabilized with straw or erosion control blanket as needed. Turbidity curtain, silt fence, and any other temporary erosion control measures installed prior to dewatering basin construction will be removed after a cover crop has been sufficiently established.



# 3.0 DESIGN AND CONSTRUCTION SPECIFICS

# 3.1 Permitting

Several permits are required for work within the channel. Permit applications have been submitted to the appropriate agencies; however, permits have not yet been issued. Permit applications submitted and currently pending include: the IDNR Construction in a Floodway permit; the Indiana Department of Environmental Management (IDEM) Clean Water Act Section 401 Water Quality Certification permit, and U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit. Project design details and approval forms have also been submitted to the Lagrange County Drainage Board. Copies of the permits are included in Appendix B.

# 3.2 Landowner Agreements

One individual owns the parcel of land on which the project is located. A copy of the landowner agreement is included in Appendix C.

# 3.3 Floodplain Analysis

Floodplain analysis was not required for this project.

# 3.4 Sediment Characterization

Sediment sampling conducted during 2000 indicated that the Mill Pond contained 1.5 to 2.5 feet of accumulated sediment with areas of greater depth located closer to the pond's outlet. Sediment samples collected concurrently with sediment accumulation measurements contained phosphorus concentrations of 950 mg/kg (Commonwealth Biomonitoring, 2001).

Sediment sampling was repeated by JFNew in October 2003. Sampling consisted of depth measurement and sediment and water sample collection for elutriate testing. Sediment depth measurements occurred at approximately 600 feet, 400 feet, and 100 feet upstream of the failed dam. Sampling indicated that 1 to 3 feet of sediment has accumulated within the Mill Pond (Appendix D). Generally, accumulated sediment depth was deeper closer to the failed dam structure. Elutriate test results indicated that 1.7 to 2.4 mg/l of ammonia-nitrogen was present in sediment accumulated within the Mill Pond (Appendix D). These levels are elevated and pose a risk of increasing biological oxygen demand when sediments are removed from the Mill Pond. If ammonia-nitrogen is released during dredging, dissolved oxygen levels could decline within the Mill Pond. Special precautions must be in place to reduce the exposure and transport of ammonia-rich sediment within the Mill Pond.

# 4.0 BIDDING REQUIREMENTS, FORMS, AND INFORMATION

Bids will be solicited from contractors in two portions: 1) silt fence installation, grade control installation, dewatering basin berm construction and removal, and dewatering pipe installation and removal and 2) hydraulic dredging for sediment trap construction, dredging and dewatering pipe location, dredging pipe installation, and turbidity curtain installation. An invitation to bidders will be issued via a letter similar to the example included in Appendix E. The invitation will include specifics regarding project design drawings (Appendix A), specifications (Appendix E), and bid return deadlines (to be determined at the time of bid solicitation). Design specifics, access to the project site, and any proposed design modification or potential construction issues



should be discussed with the engineering consultant prior to bid submittal. Bid forms are required. All bidders must agree to complete all work in a timely manner as determined prior to bid submittal, agree to follow all instructions as provided with bid solicitation, and complete the work for the agreed upon price in a suitable manner. All of the above, in addition to any other stipulations as determined by the engineering firm with project oversight, will be documented in a written and signed contract.

# **5.0 SPECIFICATIONS**

Project specifications are included in Appendix E.

#### 6.0 CONSTRUCTION SCHEDULE

The project schedule will be determined by grant allocation and engineering consultant selection. Theoretically, the project will be scheduled to begin in the fall of 2004 following agricultural harvest with a completion date during the spring of 2005. Clearing of the site should be completed in late October or early November. Actual construction work should begin in early to mid-December and be completed by April 2005. Final grading of the dewatering basin should occur six months after dredging is complete.

#### 7.0 MONITORING AND MAINTENANCE SCHEDULE

Annual monitoring of the site is recommended. A member of the Five Lakes Conservation Association, their assigned agent, or the landowner should complete the monitoring as follows. The monitoring individual will investigate the depth of the sediment basin by probing the sediment with a measured instrument. The individual will record sediment depths and compare those with post-dredging depths supplied by the contractor. When the sediment trap is 70% filled, as determined by post-construction profiles, the owner should consider dredging the trap. The grade control should be annually inspected for height alteration due to flooding or human intervention. In the event that height alteration or grade control failure occurs, the owner should consider immediate replacement to meet elevations as indicated in the design figures (Appendix A). Any signs of erosion or failure of the grade control structure should be reported to JFNew so that remedial measures can be taken.

# 8.0 PROJECT SUMMARY

The Pettit Mill Pond Sediment Reduction project will include the removal and replacement of the failed dam structure with a grade control in addition to the construction of a sediment trap within the Mill Pond. Construction is expected to occur in late 2004 following the removal of crops from the agricultural field where sediment dewatering basin will be constructed.

# 9.0 LITERATURE CITED

Commonwealth Biomonitoring, Inc. 2001. Indian Lakes Improvement Project. Indiana Department of Natural Resources, Division of Soil Conservation, Lake and River Enhancement Program, Indianapolis, Indiana.





http://www.jfnew.com

Corporate Office 708 Roosevelt Road Walkerton, Indiana 46574 574-586-3400 fax 574-586-3446

Indianapolis Office 6640 Parkdale Place, Suite S Indianapolis, Indiana 46254 Cincinnati Office 8080 Beckett Center Dr., Sulte 226 West Chseter, Ohio 45069 513-942-3446 fax 513-942-3447

Michigan Office 600 South Beacon Illinois Office
722 West Exchange, Sulte 4
Crete, Illinois 60417
708-367-1130 fay 708-367-1

# **INDEX OF DRAWINGS**

SHEET SHEET DESCRIPTION

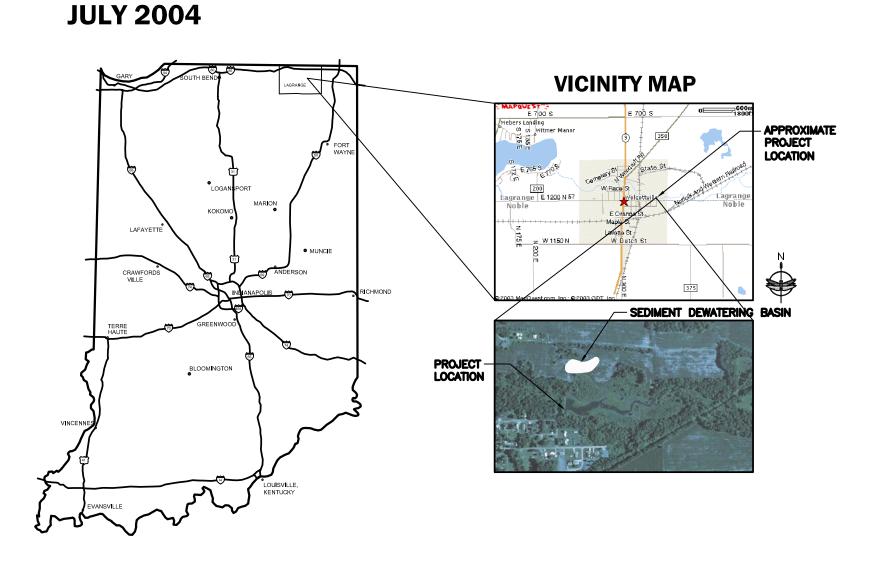
1 TITLE SHEET AND SHEET INDEX
2 OVERALL SITE PLAN
3 DETAILS AND SECTIONS



GRADE CONTROL STRUCTURE 2 YEARS AFTER INSTALLATION

# PETTIT MILL POND FIVE LAKES CONSERVATION ASSOCIATION

# LAGRANGE COUNTY WOLCOTTVILLE, INDIANA SEDIMENT CONTROL PROJECT



initials are provided in the p



SRANGE COUNTY, INDIANA
EDIMENT CONTROL PROJECT
E SHEET AND SHEET INDEX

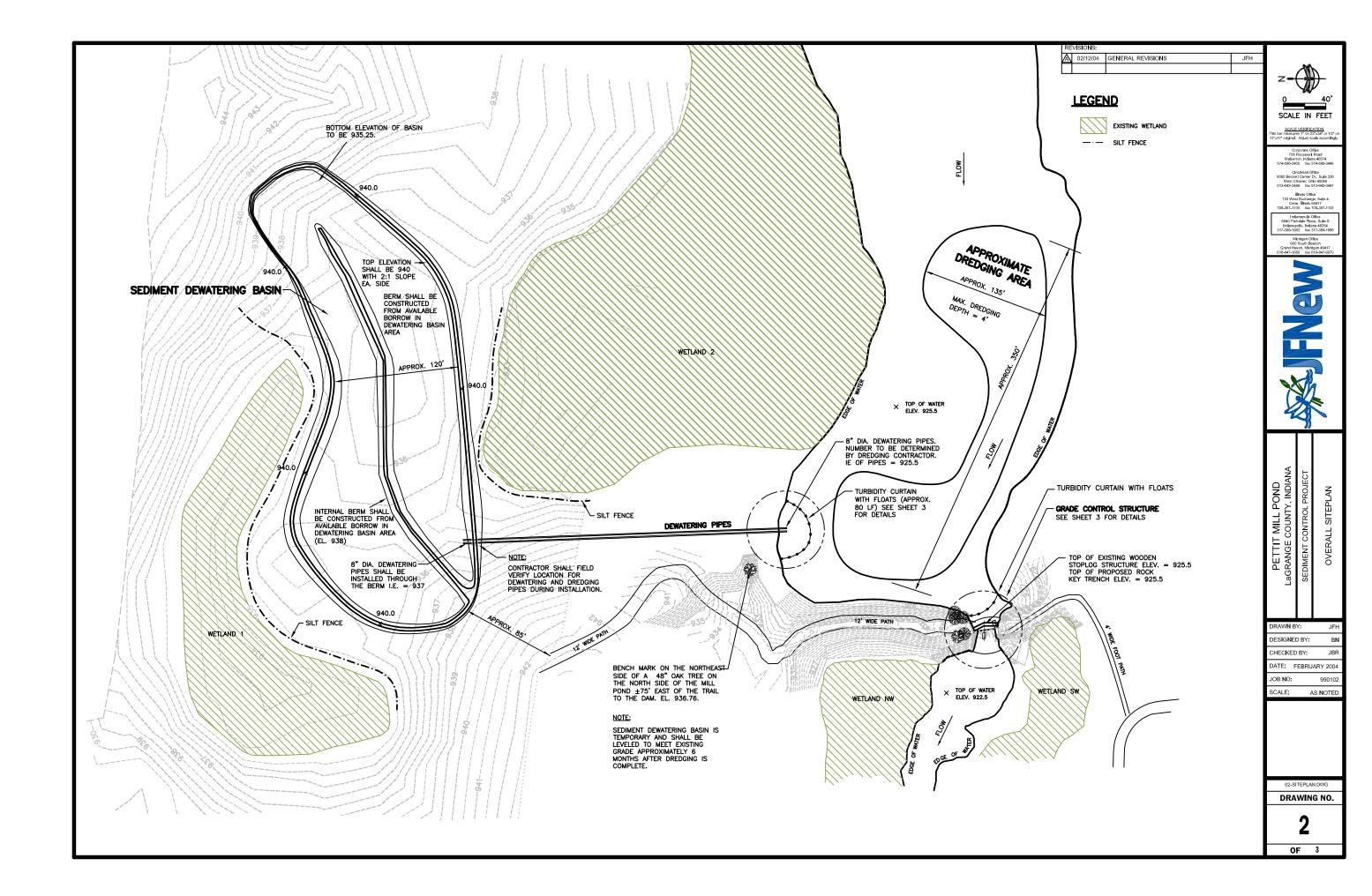
DRAWN BY: JFH
DESIGNED BY: BN
CHECKED BY: JBR
DATE: FEBRUARY 2004
JOB NO: 990102

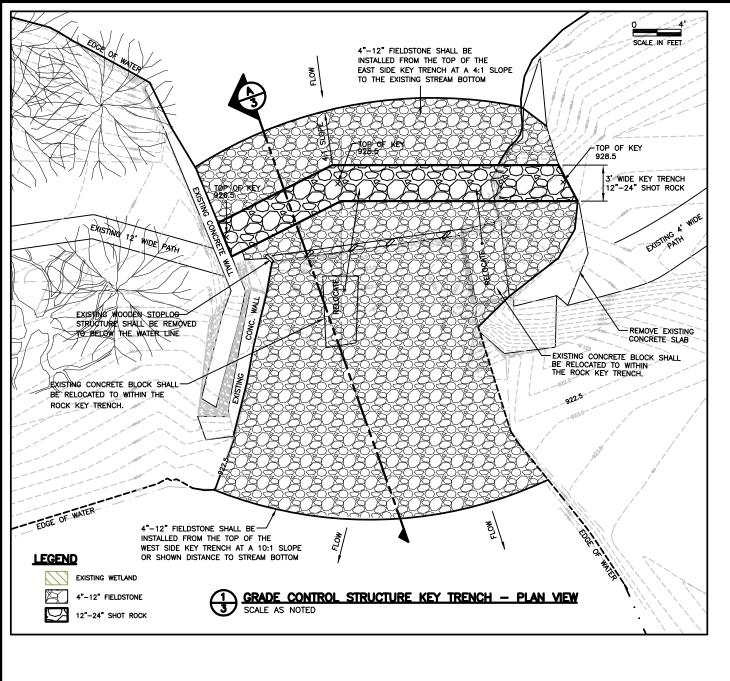
SCALE: AS NOTED

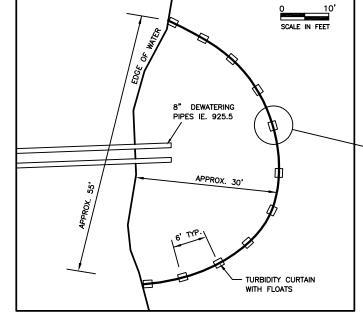
01-COVER.DWG

DRAWING NO.

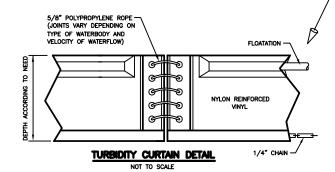
1





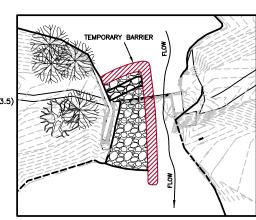




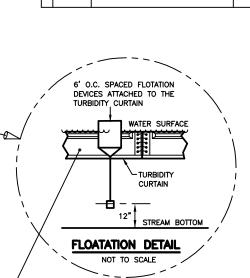


# **KEY TRENCH INSTALLATION NOTES:**

- AN APPROX. 3' WIDE TEMPORARY BARRIER SHALL BE INSTALLED USING 4"-12" FIELDSTONE TO ISOLATE THE NORTH AND SOUTH SIDES OF THE GRADE CONTROL CONSTRUCTION AREAS FROM STREAM WATER (SEE THE DIAGRAMS BELOW FOR TYPICAL ROCK BARRIER CONSTRUCTION LAYOUT).
- 2. EXISTING CONCRETE SLABS WITHIN THE CONSTRUCTION AREA MAY BE BURIED BELOW THE FIELDSTONE INSTALLATION AREA AS LONG AS PROPER SLOPE AND COMPLETE ROCK COVERAGE CAN BE



BARRIER FOR NORTH SIDE CONSTRUCTION - PLAN VIEW



02/12/04 GENERAL REVISIONS

#### **TURBIDITY CURTAIN NOTES:**

TURBIDITY CURTAIN:
SILTMASTER TURBIDITY CURTAIN — TYPE I
PERVIOUS, OR EQUAL
SKIRT DEPTH — 5 FEET
FABRIC — GEOTEXTILE (WOVEN POLYPROPYLENE MESH) BALLAST - 5/16" GALVANIZED PROOF OIL CHAIN

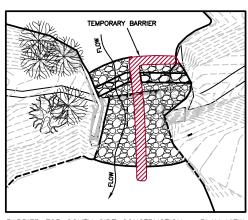
#### POTENTIAL SUPPLIERS:

PARKER SYSTEMS, INC. (PSI) 2880 YADKIN ROAD CHESAPEAKE, VA 23323-0380 TELEPHONE (866) 472-7537 OR EQUAL

- 2. THE CURTAIN WILL BE ANCHORED TO THE BANK AND ANCHORS PLACED AT JOINTS WHERE NECESSARY.
- 3. THE LOWER EDGE OF THE BARRIER SHOULD BE 12" ABOVE THE STREAM BOTTOM.
  FLOTATION DEVICES ARE USED TO KEEP THE CURTAIN SUSPENDED IN THE WATER.
- 4. THE CURTAIN CAN BE USED IN SHALLOW WATERS WITHOUT FLOTATION DEVICES, HELD BY STAKES NOT MORE THAN 6 FEET APART.
- 5. TURBIDITY CURTAIN SHOULD BE INSTALLED PARALLEL, NOT PERPENDICULAR TO STREAM

#### MAINTENANCE:

- A. REMOVE SEDIMENT BUILDUP AS NECESSARY.
- FREQUENTLY CHECK THE ANCHORS AND JOINTS TO ENSURE THEY ARE FUNCTIONING PROPERLY.



BARRIER FOR SOUTH SIDE CONSTRUCTION - PLAN VIEW



Illinois Office 722 West Exchange, Suite Crete, Illinois 60417 08-367-1130 fax 708-367-Indianapolis Office 6640 Parkdale Place, Suite S Indianapolis, Indiana 46254 17-388-1982 fax 317-388-19

Michigan Office 600 South Beacon d Haven, Michigan 7-1680 fax 616-6

DRAWN BY: DESIGNED BY: HECKED BY: ATE: FEBRUARY 200 JOB NO: 99010

SCALE: AS NOTE

03-DETAILS.DW

DRAWING NO.

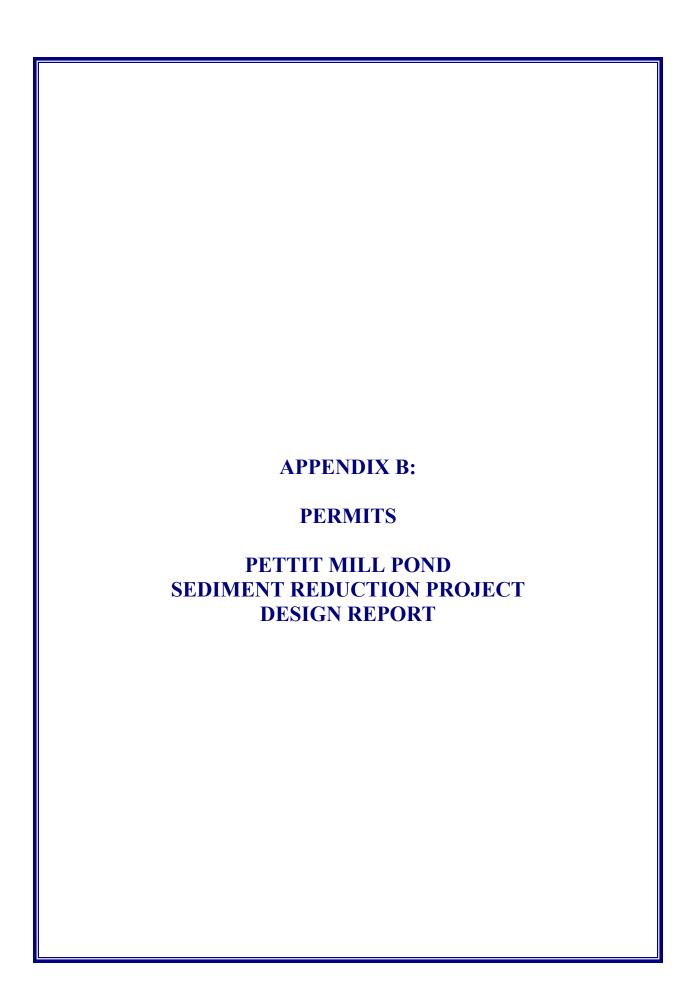
OF 3

ELEV. 925.5 (CENTER) (NORTH END FLEV. 926.5) (SOUTH END ELEV. 928.5) FXISTING WATER LINE EXISTING ACCUMULATED FLOCULENT SEDIMENT (EL.=923.5 - 4"-12" FIELDSTONE 4"-12" FIELDSTONE EXISTING CONCRETE BLOCK-- ORIGINAL STREAM BOTTOM EXISTING STREAM-BOTTOM TO BE RELOCATED INTO - FXISTING WOODEN KEY TRENCH STOPLOG STRUCTURE 12"-24" SHOT ROCK

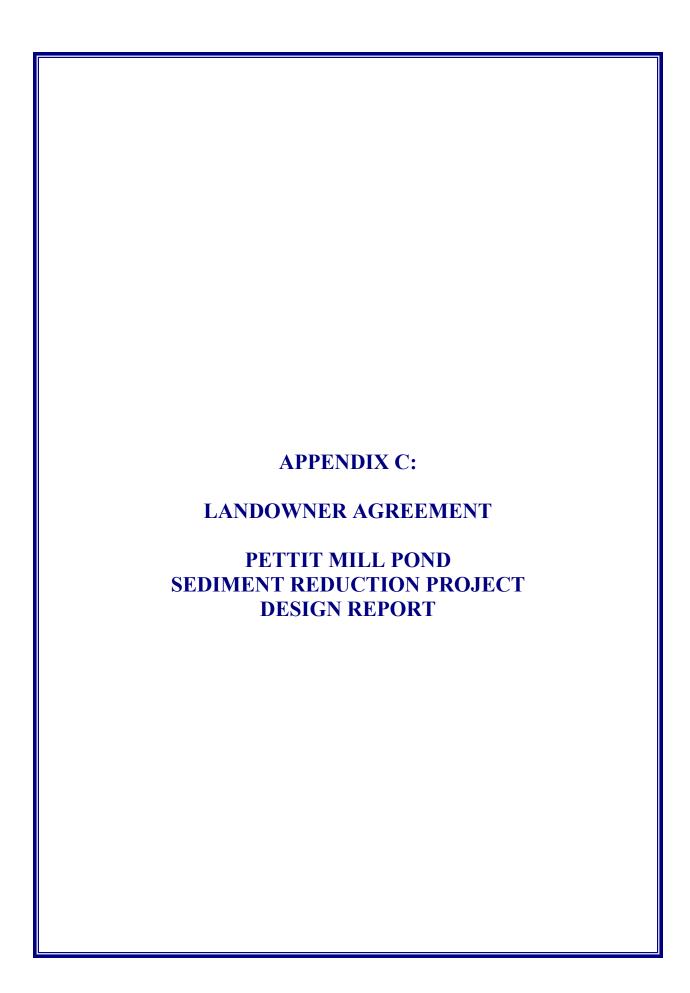
APPROX. 5'

(A) KEY TRENCH • GRADE CONTROL STRUCTURE - SECTION SCALE AS NOTED

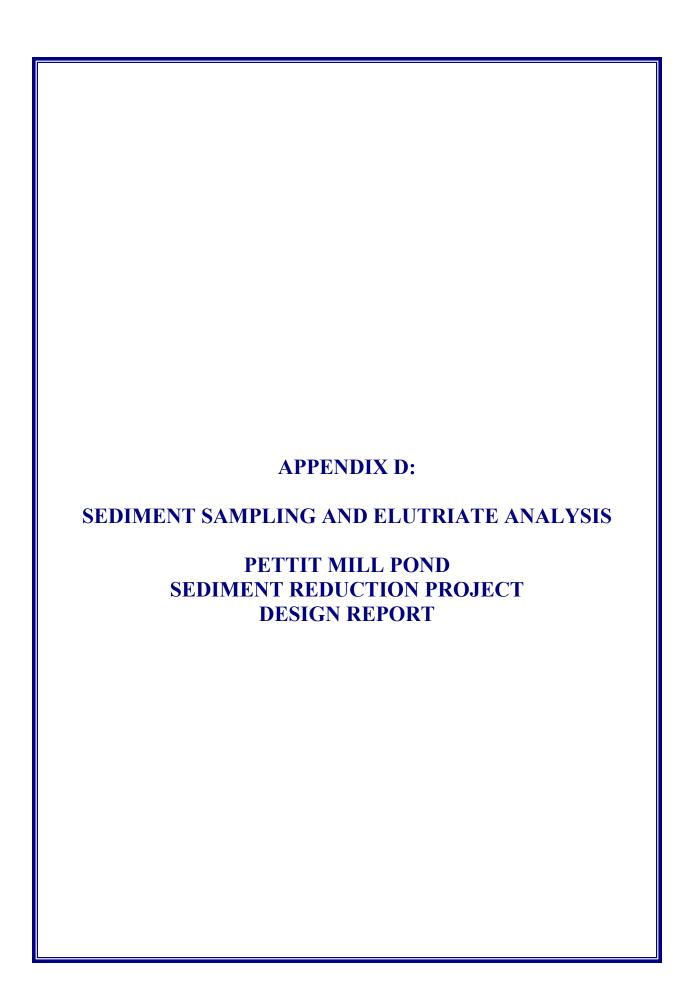
APPROX. 25' ±



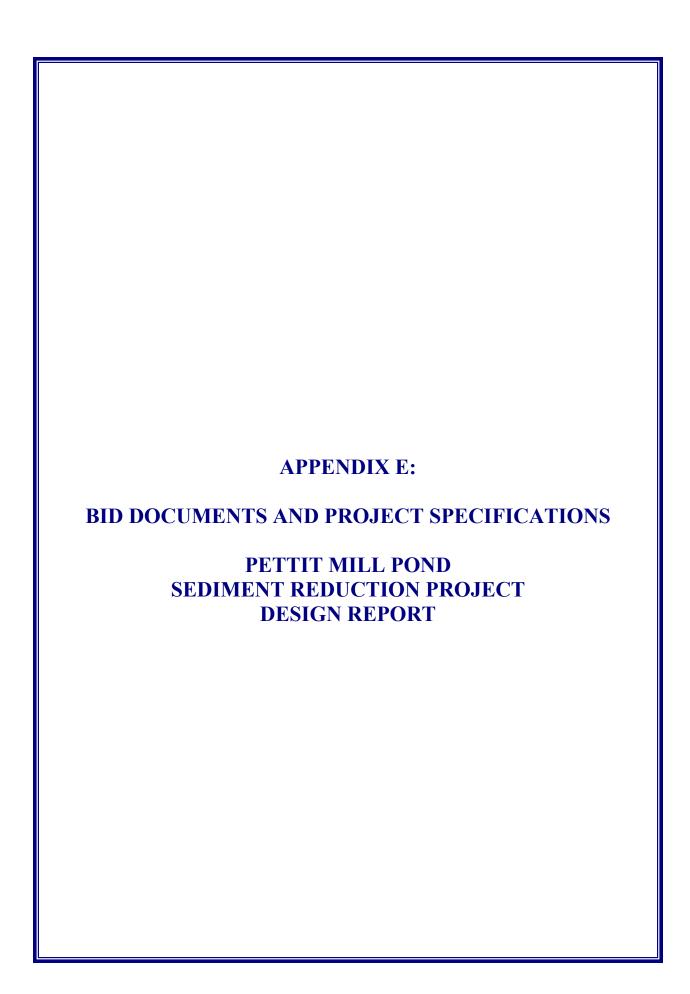
Permits are not included with the electronic version of this report. Copies of the permits can be obtained from the Indiana Department of Natural Resources Division of Fish and Wildlife Lake and River Enhancement Program Office.



Landowner communication is not included with the electronic version of this report. Copies of the pertinent communication can be obtained from the Indiana Department of Natural Resources Division of Fish and Wildlife Lake and River Enhancement Program Office.



Sampling and elutriate analysis results are not included with the electronic version of this report. Copies of these results can be obtained from the Indiana Department of Natural Resources Division of Fish and Wildlife Lake and River Enhancement Program Office.



# INVITING SEALED PROPOSALS

# FOR PETTIT MILL POND SEDIMENT CONTROL PROJECT AT LITTLE ELKHART CREEK, WOLCOTTVILLE, INDIANA

Pursuant to I.C. 5-3-1 the Five Lakes Conservation Association (Owner), Lagrange and Noble

Counties, Indiana, or	, the Owner's representative, will
receive sealed bid proposals <b>until the hour of</b>	on, 2004
in the	, Indiana for: "PETTIT MILL
POND SEDIMENT CONTROL PROJECT".	
Each bid shall be submitted in a sealed envelope, iden	
<b>Control Project</b> ", and shall bear the name and address of the Office of the Owner's representative prior to the s	
required by I.C. 36-1-12-4, at the above stated time, all	1 0
aloud in	. Any bid received
after the designated time will be returned unopened.	
Pursuant to I.C. 36-1-12-4(b, 2) copies of the plans and sp	pecifications are available for inspection
i disdant to i.e. so i iz i(e, z) copies of the plans and s	poortions are available for inspection

to interested bidders in the office of the Owner's representative. Bid documents may be purchased from JFNew at 708 Roosevelt Road, Walkerton, Indiana 46574, by payment of the plan fee of \$40.00 payable to JFNew.

If any person contemplating submitting a bid for this work is in doubt as to the true meaning of any part of the Plans, Specifications or other proposed contract documents, he or she may submit a written request to the Owner's representative for interpretation thereof. Any interpretation or correction of the documents will be made by addendum, duly issued, and a copy of the addendum will be mailed or delivered to each person receiving a set of contract documents. The Owner will not be responsible for any other explanations or interpretations of the contract documents.

Bids shall be submitted on the enclosed documents.

The bid shall include an executed Non Discrimination Clause, Certificate of Non Segregated Facilities and Wage Scale Affidavit as required by I.C. 36-1-12-15.

Pursuant to I.C. 36-1-9-3(h), after a satisfactory bid is received the Five Lakes Conservation Association shall award a contract to the lowest responsible and responsive bidder.

Pursuant to I.C. 36-1-12-4(9), if the Board awards the contract to a bidder other than the lowest bidder, the Board must state in the minutes or memoranda, at the time the award is made, the factors used to determine which bidder is the lowest responsible and responsive bidder and to justify the award. The Board shall keep a copy of the minutes or memoranda available for public inspection.

Pursuant to I.C. 36-1-12-4(10), in determining whether a bidder is responsive the Board may consider the following factors:

- (1) Whether the bidder has submitted a bid or quote that conforms in all material respects to the specifications
- (2) Whether the bidder has submitted a bid that complies specifically with the invitation to bid and the instructions to the bidder.
- (3) Whether the bidder has complied with all applicable statutes, ordinances, resolutions, or rules pertaining to the award of a public contract.

Pursuant to I.C. 36-1-12-4(11), in determining whether a bidder is a responsible bidder, the Board may consider the following factors:

- (1) The ability and capacity of the bidder to perform the work.
- (2) The integrity, character, and reputation of the bidder.
- (3) The competency and experience of the bidder.

Pursuant to I.C. 36-1-12-6(a), the Owner or Owner's representative shall award the contract and shall provide the successful bidder with written notice to proceed within sixty (60) days after the date on which the bids are opened.

Pursuant to I.C. 36-1-12-6(d), failure to award and execute the contract and to issue the notice to proceed within the sixty (60) day time limit required by I.C. 36-1-12-6(a) entitles the successful bidder to:

- (1) reject the contract and withdraw his bid without prejudice; or
- (2) extend the time to award the contract and provide notice to proceed at an agreed later date.

If the successful bidder elects to reject the contract and withdraw his or her bid, notice of that election must be given to the Owner in writing within fifteen (15) days of the sixty (60) day expiration date or any other extension date.

Pursuant to I.C. 36-1-12-4 (b, 8b) the Board of Commissioners retain the right to reject any and all bids.

# FIVE LAKES CONSERVATION ASSOCIATION WOLCOTTVILLE, INDIANA

Robert Christen, President		
Roland Kerr, Vice President		
Attest:		
(insert individual's name here)		
Published/Advertised:		
. 2004		

# INSTRUCTIONS TO BIDDERS

**TITLE AND LOCATION OF THE WORK:** The work on this contract is identified as: Pettit Mill Pond Sediment Control Project, located on the north side of County Line Road approximately 0.5 miles east of State Road 9 in Wolcottville, Indiana.

**SPECIFICATIONS:** Specifications to be used in the construction of this project are contained herein.

**SEALED BIDS:** Pursuant to I.C. 36-1-12-4 each bid shall be submitted in a sealed envelope addressed to the Five Lakes Conservation Association. The envelope shall bear the name and address of the person or firm submitting the bid and a statement referring to the project to which the bid applies. If not delivered personally, the above mentioned sealed envelope shall be enclosed in another, addressed to the

Five Lakes Conservation Association c/o Owner's Representative

\_\_\_\_

To submit a bid, the following fully executed documents must be submitted in the sealed envelope:

Lump Sum Bid & Supplemental Unit Price Bids Contract Certificate of Non Segregated Facilities Non Discrimination Clause

**WAGE SCALE:** Pursuant to I.C. 5-16-7-1(k), this project will require the contractor shall pay for each class of work on the project a scale of wages that may not be less than the common construction wage attached to these specifications

**PROPOSALS:** Bid proposals shall be submitted on the forms provided herein.

**INTERPRETATION OF THE PLANS AND SPECIFICATIONS:** If any person contemplating submitting a bid for this work is in doubt as to the true meaning of any part of the Plans, Specifications or other proposed contract documents, he or she may submit a written request to the Owner's representative for interpretation thereof. Any interpretation or correction of the documents will be made by addendum, duly issued, and a copy of the addendum will be mailed or delivered to each person receiving a set of contract documents. The Owner will not be responsible for any other explanations or interpretations of the contract documents.

**ADDENDA:** Any addenda issued during the time of bidding, or forming a part of the contract documents given to the bidder for preparation of his or her proposal, shall be covered in the

proposal and shall be made a part of the proposal. Receipt of each addendum shall be acknowledged and attached to the proposal.

**AWARD OF THE CONTRACT:** After a satisfactory bid is received the Five Lakes Conservation Association or their representative shall award a contract to the lowest responsible and responsive bidder.

Pursuant to I.C. 36-1-12-4(10), in determining whether a bidder is responsive the Board may consider the following factors:

- (1) Whether the bidder has submitted a bid or quote that conforms in all material respects to the specifications
- (2) Whether the bidder has submitted a bid that complies specifically with the invitation to bid and the instructions to the bidder.
- (3) Whether the bidder has complied with all applicable statutes, ordinances, resolutions, or rules pertaining to the award of a public contract.

Pursuant to I.C. 36-1-12-4(11), in determining whether a bidder is a responsible bidder, the Association may consider the following factors:

- (1) The ability and capacity of the bidder to perform the work.
- (2) The integrity, character, and reputation of the bidder.
- (3) The competency and experience of the bidder.

**EXECUTION OF THE CONTRACT:** Pursuant to I.C. 36-1-12-6(a), the Owner's representative shall award the contract and shall provide the successful bidder with written notice to proceed within sixty (60) days after the date on which the bids are opened.

Pursuant to I.C. 36-1-12-6(d), failure to award and execute the contract and to issue the notice to proceed within the sixty (60) day time limit required by I.C. 36-1-12-6(a) entitles the successful bidder to:

- (1) reject the contract and withdraw his bid without prejudice; or
- (2) extend the time to award the contract and provide notice to proceed at an agreed later date.

If the successful bidder elects to reject the contract and withdraw his or her bid, notice of that election must be given to the Owner's representative in writing within fifteen (15) days of the sixty (60) day expiration date or any other extension date.

# **BIDDERS LUMP SUM PROPOSAL**

Wolcottville, Indiana

Instructions to Bidders:

This form shall be utilized by all Bidders. Except as otherwise specifically provided, all parts shall be fully and accurately filled in and completed.

Projec	ct: PETTIT MILL POND SEDIMENT CONTROL P	ROJECT
Date:		
To:	FIVE LAKES CONSERVATION ASSOCIATION c/o Owner's Representative	
	PART 1 BIDDER INFORMATION (Print or Type)	
1.1	Bidder Name:	
1.2	Bidders Address:	
	City: State: Zip:	
	Phone: ( ) Fax:	
1.3	Bidder is a/an [mark one]:	
	Individual Partnership Foreign (Out of State) Corporation Joint Venture Other:	
1.4	Bidders Federal ID No	

# PART 2 PROPOSAL (BID)

apparatus, materials, fulfill all obligation provided by the term	idder proposes to furnish all a equipment, service and other necessincident thereto in strict accordings and conditions of the Contract including any and all addenda the	cessary supplies, and to perfordance with and within the Documents for the work de
Dollars (\$	<u>).</u>	
Signed the	day of	, 2004
Bidder/Contracto	or - Signature	
Name - Typ	 ed	

# PART 3 BID WORKSHEET

Item Number	Description	Quantity	Unit Price*	Amount
1	Hydraulic excavation of sediment trap	1 each		
	(including all pipes and silt curtains)			
2	Sediment dewatering basin	1 each		
	(including seeding and silt fence)			
3	Grade control	1 each		

<sup>\*</sup>Bid only on those items upon which you are qualified to bid.

# PART 4 SUPPLEMENTAL UNIT PRICES

If additional work is ordered during the period of construction by written instructions or by drawings prepared by the ENGINEER, the CONTACTOR agrees to accept the following unit prices for each addition. *Bidder shall submit the following information with his base bid:* 

# Unit Price No.1 Add or delete geosynthetic silt fence in accordance with the Drawings and Specifications. \$ / lin. ft. Unit Price No. 2 Add or delete silt curtain in accordance with the Drawings and Specifications. \$\_\_\_\_\_/lin. ft. Unit Price No. 3 Add or delete stone to be provided and installed in accordance with the Drawings and Specifications. \$ /cu. yd. Unit Price No. 4 Add hydraulic dredging, in addition to those areas already identified in the Drawings and Specifications. \$ /cu. yd. Unit Price No.5 Add excavation or movement of soil material in addition to those areas already identified in the Drawings and Specifications. \$ /cu. yd. Unit Price No. 6 Add or delete seed in accordance with the Drawings Specifications. \$\_\_\_\_\_/sq. yd.

Bid - 3

# PART 5 CONTRACT DOCUMENTS AND ADDENDA

4.1	The bidder agrees to be bound by the terms and provisions of all Contract Documents an incorporates such Contract Documents herein by reference.		
4.2	The Bidder acknowledges receipt of the following addenda:		
	Addendum Number	<u>Date</u>	

# **CONTRACT**

Association, as party of the first part, hereinafter called the "Owner and
, as party of the second party, hereinafte
called the "Contractor"
WITNESSTH

That for and in consideration of the mutual covenants herewith enumerated, the Owner does hereby hire and employ the Contractor to furnish all materials, equipment and labor necessary to fully construct the work designated as follows:

# PETTIT MILL POND SEDIMENT CONTROL PROJECT WOLCOTTVILLE, INDIANA

According to the plans, standard specifications, supplemental specifications, profiles and drawings therefrom, and any supplemental or special provisions set out or referred to in the Contractor's attached Proposal, and hereby agrees to pay the Contractor therefor, for the actual amount of work done and materials in place, as measured and approved by the Engineer or duly authorized representative, for the lump sum price as stated in the Contractor's attached Lump Sum Bid Proposal dated \_\_\_\_\_\_\_\_, which sum the Contractor agrees to accept as full payment for such construction work; and

#### IT IS FUTHER MUTALLY AGREED:

That the accompanying Proposal together with the plans, standard and supplemental specifications and special provisions herein designated and referred to, are hereby made a part of the Contract the same as if herein fully set forth; and

That the Contract amount may be paid to the Contractor upon progress estimates of completed and approved work prepared by the Engineer, in an amount not exceed Eighty Five Percent (85%) of such estimates, Fifteen Percent (15%) shall be withheld by the Board for a period sixty (60) days after the completion of the work, for the purpose of securing payment of all properly prepared and certified statements of indebtedness which shall have been filed against the Contractor for labor performed and materials furnished or other services rendered in carrying forward, performing and the completing of this contract, and such estimates shall also be subject to the provisions of the Standard Specifications on file in the office of the Owner's representative and made a part hereof; and that before any estimate is paid to the Contractor, he shall furnish receipts for all debts incurred in the prosecution of such work or satisfactory evidence and assurance that the same have been paid; or shall consent to the withholding by Owner from his final estimate of sums sufficient to cover such indebtedness, which sums may be held until such indebtedness is settled, or until conclusion of any litigation in the relation thereto filed within such period; and that no monies due on this final estimate shall be paid until the work is fully completed and accepted as provided in the Specifications.

CONTRACT 1 OF 2

IN TESTIMONY WHEREOF, the Bidder, 2004.	has hereunto set his hand thisday of
	Contractor
	By
	Lakes Conservation Association does hereby accept the their hands this day of
	Five Lakes Conservation Association Wolcottville, Indiana
	Robert Christen, President
	Roland Kerr, Vice President
	(insert individual's name here)

# **NON-DISCRIMINATION CLAUSE**

Pursuant to I.C. 5-16-6-I and all acts amendatory thereto, this agreement entitled "Non Discrimination Clause" is hereby incorporated in and made a part of a contract dated between the Five Lakes Conservation Association, who expects
to finance this contract with public works funds and/or special assessments, and the undersigned hereinafter called the "Contractor". During the performance of this contract, the Contractor agrees as follows:
1. That in the hiring of employees for the performance of work under this contract or any subcontractor hereunder, neither the Contractor, subcontractors, nor any person acting or behalf of the Contractor or subcontractor shall, by reason of race or color, discriminate against any citizen of the State of Indiana, who is qualified and available to perform the work to which the employment relates;
2. That neither the Contractor, subcontractor, nor any person on his behalf shall in any manner discriminate against or intimidate any employee hired for the performance o work under this contract on account race or color.
3. That there may be deducted from the amount payable to the Contractor by the State of Indiana or by any local governmental unit thereof, under this contract, a penalty of Five Dollars (\$5.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this contract and;
4. That this contract may be cancelled or terminated by the State of Indiana or by any local governmental unit thereof, and all monies due or to become due hereunder may be forfeited for a second or any subsequent violation of the terms or conditions of this section of the contract.
The Contractor also submits with this contract those forms prescribed by the Indiana State Board of Accounts, under oath, as statement of his experience, proposed plan for performing the work, the equipment he has available for the performance of the work and a complete financial statement.
Signed this day of2004,
Contractor

# CERTIFICATE OF NON-SEGREGATED FACILITIES

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facility at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees, that a breach of this certificate will be a violation of the Equal Opportunity Clause in any contract resulting from acceptance of this bid. As used in this certification the term "Segregated Facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurant and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities, provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom, or otherwise. The Bidder agrees, that (except where he has obtained identical certification from proposed contractors for specific time periods) he will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that he will retain such certification in his files.

Name of Bidder		
By:		
Title:		
Address:		

# SECTION 7.1 MANUFACTURER'S RECOMMENDATIONS

#### **DESCRIPTION**

#### GENERAL INFORMATION

Whenever and wherever Contract Documents indicate the performance of a particular task shall be done in accordance with the manufacturer's recommendations and/or specifications or manufacturer's printed instructions, said recommendations and/or specifications shall be submitted in conformance with Specifications.

# **CONTRACTOR'S RESPONSIBILITIES**

- Contractor is responsible for reviewing specific manufacturer's recommendations and/or specifications and submitting same for Engineer's review if there are discrepancies between therecommendations, project plans, and specifications.
- In the event Contractor wishes to use a manufacturer that has no specific recommendations and/or specifications for a particular application, Contractor shall be responsible for developing such a set of criteria based upon standard practice within the industry. This development shall be limited to points of procedure and cannot be extended to cover specific technical information relating to a particular manufacturer's product. Once these criteria are developed, Contractor shall submit them to the Engineer for his review. This submittal shall clearly differentiate between those elements developed by Contractor and those developed by the specific manufacturer.
- Should Contractor be unable to develop the appropriate recommendations and/or specifications, he will be required to substitute a different product which already has the appropriate recommendations and/or specifications.
- Contractor's responsibility for errors and omissions in submittals is not relieved by Engineer's review of submittals.
- Contractor's responsibility for deviations in submittals from requirements of Contract Documents is not relieved by Engineer's review of submittals. Contractor may submit specific deviations to Engineer for review, but such deviations will require the manufacturer's and/or supplier's written approval for the specific deviation as a prerequisite to Engineer's consideration or approval.
- Contractor's shall notify Engineer, in writing at the time of submission, of deviations in submittals from requirements of Contract Documents.

Contractor shall not begin work that requires submittals until return of the submittals.

# **ENGINEER'S DUTIES**

Engineer shall attempt to review submittals within 10 days from receipt of submission. Contractor will be notified if additional time is required.

Engineer's review is only for conformance with the design concept of the project and compliance with the information given in Contract Documents. Contractor is responsible for information that pertains solely to fabrication processes and to techniques for construction.

Engineer shall return the submittals to Contractor for distribution.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

**NOT USED** 

# SECTION 7.2 DEFINITION OF BID ITEMS

#### GENERAL INFORMATION

# **DESCRIPTION**

The intent of this section is to explain, in general, what is and what is not included in a bid item, and the limits or cut-off points where one bid item ends and another begins.

If no bid item exists for a portion of the work, include the costs in a related bid item.

# BID ITEM NO. 1 – Hydraulic Dredging of Sediment Trap.

This bid item includes mobilization and demobilization of equipment and personnel, as well as performance of the work, including installing all required discharge and dewatering pipes, silt curtains, pumps, and dredging the area shown on the Drawings. The bid also includes removal of all such structures and equipment upon the completion of the work.

# BID ITEM NO. 2 – Sediment Dewatering Basin.

This bid item consists of supplying and installing silt fence or approved equal erosion control measures and constructing and leveling the sediment dewatering basin as shown on the Drawings. The bid also includes all necessary mobilizations and demobilizations necessary to complete the work in a manner approved by the Owner or Owner's representative.

# BID ITEM NO. 3 – Grade Control Structure.

This bid item includes mobilization and demobilization of equipment, materials, and personnel as well as the construction of the grade control structure shown on the plans. This item also includes all necessary clearing, grubbing, site preparation, and clean-up, as well as removal of all cleared debris from the job site. Additionally, submittal of all material documentation requested by the Owner or Owner's representative is included with this bid item

# SECTION 7.3 SUMMARY OF THE WORK

#### PART I - GENERAL

#### 1.1 WORK COVERED BY CONTRACT DOCUMENTS

A. The work includes all labor, equipment, and operators required to construct and/or install the sediment trap, sediment dewatering basin, and grade control. Project work includes clearing and grubbing, excavating and grading, installation of rock, hydraulic dredging, and seeding and erosion control work.

#### B. Contractor's Duties:

- 1. Except as specifically noted, provide and pay for:
  - a. Labor and equipment.
  - b. Tools, construction equipment and machinery.
  - c. Water, restroom facilities, and utilities required for construction.
  - d. Other facilities and services necessary for proper execution and completion of work.
- 2. Additional duties that will be required include:
  - a. Notification to Owner's representative of construction activity.
  - d. Safety of employees on job site.
  - c. Local work permits.

# 1.2 CONTRACTS:

A. Construct work under single lump sum contract.

#### 1.3 CONTRACTORS USE OF PREMISES:

- A. Confine access and operations at site to areas designated by Owner or Owner's Representative..
- B. Do not unreasonably encumber neighbors with noise, materials or equipment.
- C. Assume full responsibility for protection and safekeeping of your equipment stored on premises.

# 1.4 PERMITS

- A. Owner is responsible for State and Federal permits.
- B. The Contractor shall obtain any local permits that relate to construction.

# 1.5 UTILITIES

- A. The Contractor is responsible for locating utilities prior to construction activities.
- B. Any existing utility systems that conflict with the construction of the work herein shall not be relocated. The Contractor shall work with the owner or his designated agent on site to resolve any conflicts regarding existing utilities. The Contractor shall not charge additional fees for work affected by existing utilities.

# 1.6 ACCESS BY OWNER

- A. The owner or owner's representative may access all work areas for the purposes of construction observation and compliance checks.
- B. Contractor shall provide:
  - 1. Access for owner.
  - 2. Access for owner's representative.
  - 3. Access for all local, State, and Federal agency employees while performing inspections under the authority of permits granted.
  - 4. Access for other contractors, if required.

#### 1.7 SECURITY

A. The Contractor is responsible for the security of his equipment and workers.

#### 1.8 CONSTRUCTION SITE ACCESS

- A. The Contractor shall be responsible for maintaining access roads used by Contractor's equipment or employees. The Contractor shall be responsible for leaving access roads in their pre-construction condition or better when work is completed.
- B. The Contractor shall be responsible for repairing all access staging and work areas to their pre-construction condition unless otherwise directed by owner or his representative in writing.

#### PART 2 - PAYMENT

# 2.1 BASIS OF PAYMENT

A. There will be no separate payment work addressed in this section. The cost of this work is to be included by the Contractor in the total cost of the project.

# SECTION 7.4 CLEARING AND GRUBBING

#### PART I - GENERAL INFORMATION

## 1.1 DESCRIPTION

A. This work shall consist of clearing, grubbing, removing, and disposing of all vegetation and debris within the limits of construction as designated by the owner (Five Lakes Conservation Association) or owner's representative. This work shall include the prevention of injury or defacement of all vegetation or other objects designated to remain within the project area.

# PART 2 - CONSTRUCTION REQUIREMENTS

#### 2.1 GENERAL

- A. Right-of-way lines and construction lines will be established. Trees, shrubs, buildings, and fences to remain are shown on the plans and shall be preserved by the Contractor.
- B. Any damage to existing trees, shrubs, and fences designated to remain shall be repaired or replaced with no additional payment.

#### 2.2 CLEARING AND GRUBBING

- A. Stumps, railroad ties, metal, concrete structures, wooden debris and other protruding debris not designated to remain within necessary travel lanes and stockpile areas shall be cleared and grubbed. Undisturbed concrete and other solid objects may be left provided that they are a minimum of one (1) foot below the final grade. The Contractor shall not be permitted to bury or burn cleared materials on the project site with the exception of the existing concrete blocks, which will be used at the base of the keytrench in the grade control.
- B. The contractor shall not burn any materials on the construction site.
- C. Excavated materials and debris described above shall be removed from the project site and disposed of at locations off site. Written permission shall be obtained from the property owner on whose property the materials and debris are to be placed. Materials and debris shall not be disposed of in wetlands.

# SECTION 7.5 EXCAVATION AND GRADING

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

A. This section includes excavation and earthmoving associated with the sediment dewatering basin not covered by other sections. The construction shall be in accordance with these Specifications and in reasonably close conformance with the lines, grades, and thickness shown in the Plans.

## 1.2 QUALITY ASSURANCE

- A. Contractor shall use materials designated by the design engineer or approved equals.
- B. The contractor shall use skilled operators and workman.

#### PART 2 - MATERIALS

#### 2.1 SOIL

- A. Soil used for the construction of the dewatering basin berms shall conform to the following:
  - 1. Available on site.
  - 2. Contains no particles larger than four (4) inches in diameter except naturally occurring rock.
  - 3. Shall be compacted to 87-95% density.
- B. If soil must be brought on site to complete the construction of the dewatering basin it shall meet criteria 2 and 3, as noted above.

## 2.2 RETURN WATER PIPES

- A. The return water pipe(s) will be sized such that water does not back up within the basin during dredge material discharge, thus causing the basin to overflow.
- B. Contractor shall work with the dredging operator to install the dewatering pipes as specified in Section 3.3 of this specification.

#### PART 3 - EXECUTION

#### 3.1 GENERAL

A. The dewatering basin shall be finished to reasonably smooth and uniform surfaces. Excavation operations shall be conducted so that material outside the limits of slopes will not be disturbed.

- B. All spongy and yielding material, which will not readily compact when dry, shall be removed from within the slope limits unless designated to remain.
- C. All areas disturbed for the construction of the dewatering basin shall be protected from erosion at the end of each workday.

#### 3.2 DEWATERING BASIN

- A. Dewatering basin construction shall consist of preparation of the area for earthen berm construction as specified in the plans.
- B. The earthen berm shall be free of stumps, roots, brush, weeds, or other perishable materials that would compromise the integrity of the dewatering basin.

## 3.3 RETURN WATER PIPES

A. Return water pipes shall be installed in a manner that prevents leakage that would cause large standing pools of return water or erosion on the property. Installation method and placement shall be determined by the owner's representative and the dredging contractor.

#### 3.4 PROTECTION AND MAINTENANCE

- A. General: Protect newly graded areas from erosion. Any settlement or washing that occurs prior to finishing the slope protection shall be repaired and grades reestablished to the required elevations and slopes.
- B. It shall be the Contractor's responsibility to comply with all state and local erosion control ordinances and the requirements set out in these specifications.
- C. No less than six months after dredging has been completed, return water pipes will be removed, the basin will be leveled, graded to match the surrounding topography, and all disturbed areas seeded with temporary seed. Additionally all areas outside the work limits disturbed by the Contractor during the execution of his work shall be returned to as near its original condition as possible.

#### PART 4 - PAYMENT

# 4.1 METHOD OF MEASUREMENT

A. There will be no measurement of excavation and grading.

## 4.2 BASIS OF PAYMENT

A. There will be no separate payment for excavation and grading. The cost of topsoil stripping, excavating, transporting, placing and compacting embankment material shall be included in the lump sum Contract Items and no separate payment will be made thereof.

# SECTION 7.6 STONE

#### PART I - GENERAL INFORMATION

#### 1.1 DESCRIPTION

A. This work shall include installation of rock in accordance with these specifications and in conformance with the plans and cross sections, unless otherwise directed by the owner or owner's representative.

## 1.2 QUALITY ASSURANCE

- A. Use equipment adequate in size, capacity, and number to accomplish the work of this Section in a timely manner. Comply with requirements of all governmental agencies having jurisdiction.
- B. Rock shall be generally free of soil, organic debris, and other foreign matter.

#### **PART 2 - PRODUCTS**

#### 2.1 MATERIALS

- A. Material requirements for this section include rock for grade control construction as indicated on the Drawings.
- B. Stone shall be sized as indicated on plans.

#### PART 3 - CONSTRUCTION REQUIREMENTS

## 3.1 CONSTRUCTION REQUIREMENTS

- A. The rock shall be placed at locations shown on the plans or as directed by the Owner or Owner's Representative. It shall be placed to produce a surface of approximate regularity but need not necessarily be hand placed. The thickness shall be as shown on the plans for each rock type.
- B. Rock shall be compacted in place using the bucket of the backhoe so that voids are reduced to less than five percent of the rock volume. If necessary to eliminate voids, smaller rock can be added to the oversize riprap.

#### PART 4 - PAYMENT

## 4.1 METHOD OF MEASUREMENT

A. Stone or rock will not be measured.

#### 4.2 BASIS OF PAYMENT

A. There will be no separate payment for providing and placing rock. The cost of this work is to be included in the total cost of the contract.

# SECTION 7.7 SEEDING

#### PART I - GENERAL INFORMATION

## 1.1 DESCRIPTION

A. This work shall include temporary seeding of the sediment dewatering basin berm side slopes and permanent seeding of all disturbed areas after construction is complete.

## 1.2 QUALITY ASSURANCE

A. The finished product shall be judged based upon the minimum percentage of cover achieved after two weeks.

## 1.3 SUBMITTALS

A. None: seed will be acquired by owner's representative.

#### PART 2 - PRODUCTS

#### 2.1 SEED MIXTURE

A. The following seed shall be used for all sediment dewatering berm side slopes and disturbed areas. It is intended to provide temporary erosion control during and immediately following construction. The seed mixture shall consist of 50 pounds seed oats and 20 pounds annual rye per acre of disturbance for temporary seeding and shall consist of the same mix plus 15 pounds per acre of Canada rye for disturbed areas determined post construction.

#### PART 3 - CONSTRUCTION REQUIREMENTS

#### 3.1 PREPARATION OF GROUND BEFORE SEEDING

A. The area to be seeded should be made smooth and uniform and shall conform to the existing grade. No soil preparation shall commence when the soil is in a wet or muddy condition.

## 3.2 SEEDING AND MULCHING

- A. Seed may be hand broadcast, hydro-seeded, or installed with a rangeland no-till drill set at 1/8" depth or less.
- B. Mulch shall be straw.

#### 3.3 SEASONAL LIMITATIONS

A. Temporary seeding should be performed immediately following sediment dewatering basin construction and clearing of access lanes to the grade control site. Permanent

seeding shall occur immediately following restoration of disturbed areas to original conditions, as required.

# PART 4 - PAYMENT

# 4.1 METHOD OF MEASUREMENT

A. Area of seeding will not be measured.

# 4.2 BASIS OF PAYMENT

A. There will be no separate payment for seeding or watering. The cost of this work is to be included by the Contractor in the total cost of the contract.

# SECTION 7.8 EROSION CONTROL

#### PART I - GENERAL INFORMATION

#### 1.1 DESCRIPTION

A. Erosion control is required for all work. Soil erosion control consists of mechanical and vegetative type measures taken by the Contractor to prevent erosion of soil during the construction process. It shall be the responsibility of the Contractor during construction to prevent such detrimental soil erosion from occurring during the prosecution of the work. This section includes temporary and permanent erosion control practices to be implemented on the project site. The Contractor shall be responsible to comply with all aspects of 327 IAC 15-5, Rule 5, "Storm Water Run-Off Associated with Construction Activity". The Contractor shall submit all necessary fees and documents to the Indiana Department of environmental Management (IDEM) prior to any construction activity. The Contractor shall be responsible for compliance with this Law throughout the construction period and shall pay any and all fines resulting from any violation, suit or penalty for non-compliance.

#### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Silt fence material shall be a woven geotextile that is a minimum of 2.0 feet in height.
- B. Mulch shall be dry oat or wheat straw, generally free of weeds and mold

#### PART 3 - CONSTRUCTION REQUIREMENTS

## 3.1 MATERIALS

- A. Silt fence shall be installed between the sediment dewatering basin and existing wetlands located on-site. Silt fence protection is only intended to be temporary and should be removed upon project completion. A two-foot high earthen berms hall be an accessible substitute for silt fence; however, it must be seeded or mulched.
- B. Erosion control materials consisting of straw mulch, if required, shall be applied at a rate of 50 bale/acre.

#### PART 4 - PAYMENT

## 4.1 BASIS OF PAYMENT

A. No measurement will be made for erosion control measures required in this specification. There will be no payment for soil erosion control measures taken by the Contractor. Payment for erosion control is considered incidental and the Contractor shall include such costs in the lump sum contract.

# SECTION 7.9 DREDGING

#### PART I - GENERAL INFORMATION

#### 1.1 DESCRIPTION

A. Hydraulic dredging will be used to construct the sediment trap. The sediment trap will match all grades and dimensions specified in the plans.

#### PART 2 - MATERIALS

- 2.1 The contractor will supply materials needed to complete all aspects of dredging and delivery of discharge materials to the dewatering basin
- 2.2 All piping shall be correctly sized and be conditioned to support the size of the dredging cutterhead and the speed of dredging.

## PART 3 - CONSTRUCTION REQUIREMENTS

# 3.1 DREDGING

- A. The sediment trap will be constructed by hydraulic dredging. Sediment will be pumped into the basin as shown in the plans. Dredging will be to grades and dimensions as shown in the plans. All substitutions must approved by the owner or owner's agent.
- B. Siltmaster Turdibity Curtain Type I shall be installed in length and locations as indicated on the design drawings.

#### PART 4 - PAYMENT

#### 4.2 BASIS OF PAYMENT

A. No measurement will be made for dredging or silt fence required in this specification.

# **Bid Documents and Specifications: Section 8**

# **NOTICE OF AWARD**

	Date:	, 20
To Contractor:		
PROJECT: (Insert name of Contract as it appears in the Bid Documents)		
You are hereby notified that your Bid dated, 20, has been apparent successful bidder. You have been awarded a contract for (i including which, if any, alternate bids)	insert description	n of work
The Contract Price of your contract is \$		
Three copies of the proposed Agreement (Contract) accompany this No, 20	otice of Award,	that is by
<ol> <li>You must deliver to the Owner or Owner's representative three (3) full the agreement (Contract). Each of the Agreements must bear your signature.</li> <li>You must deliver the Certificates of Insurance.</li> <li>(List other conditions, if applicable):</li> </ol>	re.	•
Failure to comply with these conditions within the time specified will		

Failure to comply with these conditions within the time specified will entitle Owner or Owner's representative to consider your bid abandoned, to annul this Notice of Award.

Within ten (10) days after you comply with these conditions, Owner or Owner's representative will return to you one fully signed counterpart of the Agreement for your records.

(Owner or Owner's Representative)
Ву
Title

# **Bid Documents and Specifications: Section 9**

# AGREEMENT BETWEEN OWNER AND CONTRACTOR

THIS AGREEMENT is by and between the	(here
in after called Owner) and	(here in after called
in after called Owner) and	nants hereinafter set forth,
ARTICLE 1. WORK	
CONTRACTOR shall complete all Work as specified or indicated in the Project is generally described as follows: grade control construction, so installation, and hydraulic dredging for sediment trap creation at the Fontrol Project site located east of State Road 9 and north of Countyl Indiana.	ediment dewatering basin Pettit Mill Pond Sediment
ARTICLE 2. AGENT	
The Project has been designed by JFNew, Walkerton, Indianahereinafter called Agent and who is to act as Owner's representative responsibilities and have the rights and authority assigned to AGENT in the connection with completion of the Work in accordance with the Contract I	e, assume all duties and the Contract Documents in
ARTICLE 3. CONTRACT TIME	
3.1 <u>The Work</u> will be substantially completed within consecutive can when the Contract Time commences and completed and ready for final patthe Contract Time. Contract Time shall commence on or about	ayment in accordance with
ARTICLE 4. CONTRACT PRICE	
4.1 OWNER shall pay CONTRACTOR for completion of the Work Contract Documents, in current funds, as follows: \$	c in accordance with the
ARTICLE 5. PAYMENT PROCEDURES	
CONTRACTOR shall submit Applications for Payment to the Owner as a lump sum upon completion of the work. Applications for Payment will provided in Article 6.	

ARTICLE 6. INTEREST

This work is funded by state grant money. All invoices will be submitted by the Owner to the state within one month of receipt from Contractor. Contractor will be paid by Owner hen the state provides payment to the Owner. No interest will accompany this debt.

### ARTICLE 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions, and Laws and Regulations that in any manner may affect cost, progress, performance, or furnishing of the Work.
- 7.2 CONTRACTOR has studied carefully all reports of explorations, tests, and drawings of physical conditions, and accepts the determination of the extent of the technical data contained in such reports and drawings upon which CONTRACTOR is entitled to rely.
- 7.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports, and studies (in addition to or to supplement those referenced to in Paragraph 7.2 above) which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by CONTRACTOR for such purposes.
- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, exploration tests, reports, and studies with the terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR has given AGENT written notice of all conflicts, errors, or discrepancies that he has discovered in the Contract Document and the written resolution thereof by AGENT is acceptable to CONTRACTOR.

#### ARTICLE 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement (pages 1 to 5, inclusive).
- 8.2 Certificates of Insurance per the Project Manual.
- 8.3 Notice of Award.

- 8.4 The Project Manual including the any and all special requirements and/or provisions, specifications, construction standards, and all other sections of the Project Manual except the Bid Documents.
- 8.5 Drawings (Plans), consisting of sheets numbered 1 through \_\_\_, inclusive.
- 8.6 Addenda Number(s)

#### 8.7 CONTRACTOR'S BID.

8.8 Other documentation submitted by CONTRACTOR prior to Notice of Award (insert name and date or other documentation, if applicable: if none, insert N/A).

There are no Contract Documents other than those listed above in this Article 8.

## ARTICLE 9. MISCELLANEOUS

- 9.1 Terms used in this Agreement will have their meaning determined by the Owner's representative, upon request.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.
- IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR, and AGENT. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by AGENT on their behalf.

This Agreement will be effective onCONTRACTOR.)	, 20_ (Date to be inserted by OWNER, not
CONTRACTOR	OWNER
(Company Name)	(Company Name)
By(Name and Title)	By(Name and Title)
Address for Giving Notices	
Agent and Address for Service of Process:	Attest:

# **Bid Documents and Specifications: Section 10**

# NOTICE TO PROCEED

			Date:	, 20
To Contractor:				
	_ _ _			
	_			
PROJECT: (Insert name of Conti	ract as it appears in the Bi	d Documents)		
You are hereby notified to proceed above contract will commence to performing your obligations und Agreement (Contract), the dates 20, and, 20, resp	er the Contract Docume of Substantial Completion	. No later than than than than than than than the nts. In accordance	nt date, you a with Article	ere to start e 3 of the
Before you may start any Work a to the AGENT) must be deliv Documents.				
		(OWNE	R)	
				By
				Title